

**What is claimed is:**

1           1.    A flat panel display, at least comprising:  
2           a panel having a plurality of pixels, wherein each of  
3           the pixels comprises at least one reflective  
4           area and at least one transmissive area and the  
5           ratio of the transmissive area of each pixel on  
6           the panel to the area of the pixel varies  
7           according to the distance from the pixel to the  
8           central position of the panel and exhibits a  
9           first distribution function; and  
10          a light module supplying light to illuminate the  
11          panel, wherein the light intensity exhibits a  
12          second distribution function.

1           2.    The display as claimed in claim 1, wherein the  
2    light module comprises:  
3           a light source supplying the light; and  
4           a light guide plate guiding the light to the panel.

1           3.    The display as claimed in claim 2, which further  
2    comprises a prism between the light source and the light  
3    guide plate to direct the light to the light guide plate.

1           4.    The display as claimed in claim 2, wherein the  
2    light guide plate has an inclined plane structure.

1           5.    The display as claimed in claim 2, wherein the  
2    light guide plate has a plane structure.

1           6.    The display as claimed in claim 2, wherein the  
2    light guide plate is a backlight plate.

1           7.    The display as claimed in claim 2, wherein the  
2   light guide plate is a frontlight plate.

1           8.    The display as claimed in claim 1, wherein the  
2   transmissive area is circular, rectangular, or elliptical.

1           9.    The display as claimed in claim 1, wherein the  
2   first distribution function is a function complementary to  
3   a Gaussian function.

1           10.   The display as claimed in claim 1, wherein the  
2   first distribution function is a continuous function.

1           11.   The display as claimed in claim 1, wherein the  
2   second distribution function is a Gaussian function.

1           12.   The display as claimed in claim 1, wherein the  
2   second distribution function is a continuous function.

1           13.   The display as claimed in claim 1, wherein the  
2   product of the first distribution function and the second  
3   distribution function is a continuous function.

1           14.   The display as claimed in claim 1, wherein the  
2   ratio of the difference between the highest brightness and  
3   the lowest brightness supplied by the light module to the  
4   highest brightness supplied by the light module is within  
5   the range of 30% to 70%.

1           15.   The display as claimed in claim 1, wherein the  
2   ratio of the area of the transmissive area or the  
3   reflective area of the center pixel to the area of the

4 transmissive area or the reflective area of the outermost  
5 pixel is between 0.2 and 5.

1 16. A flat panel display, at least comprising:  
2 a panel having a plurality of pixels, wherein each of  
3 the pixels has indices of reflectivity and  
4 transmittivity and the transmittivity of each  
5 pixel on the panel varies according to the  
6 distance from the pixel to the central position  
7 of the panel and exhibits a first distribution  
8 function; and  
9 a light module supplying light to illuminate the  
10 panel, wherein the light intensity exhibits a second  
11 distribution function.

1 17. The display as claimed in claim 16, wherein the  
2 light module comprises:  
3 a light source supplying the light; and  
4 a light guide plate guiding the light to the panel.

1 18. The display as claimed in claim 17, which  
2 further comprises a prism between the light source and the  
3 light guide plate to direct the light to the light guide  
4 plate.

1 19. The display as claimed in claim 17, wherein the  
2 light guide plate has an inclined plane structure.

1 20. The display as claimed in claim 17, wherein the  
2 light guide plate has a plane structure.

1 21. The display as claimed in claim 17, wherein the  
2 light guide plate is a backlight plate.

1           22. The display as claimed in claim 17, wherein the  
2 light guide plate is a frontlight plate.

1           23. The display as claimed in claim 16, wherein the  
2 first distribution function is a function complementary to  
3 a Gaussian function.

1           24. The display as claimed in claim 16, wherein the  
2 first distribution function is a continuous function.

1           25. The display as claimed in claim 16, wherein the  
2 second distribution function is a Gaussian function.

1           26. The display as claimed in claim 16, wherein the  
2 second distribution function is a continuous function.

1           27. The display as claimed in claim 16, wherein the  
2 product of the first distribution function and the second  
3 distribution function is a continuous function.

1           28. The display as claimed in claim 16, wherein the  
2 ratio of the difference between the highest brightness and  
3 the lowest brightness supplied by the light module to the  
4 highest brightness supplied by the light module is within  
5 the range of 30% to 70%.

1           29. The display as claimed in claim 16, wherein the  
2 ratio of the index of the transmissive or the reflective  
3 of the center pixel to the index of the transmissive or  
4 the reflective of the outermost pixel is between 0.2 and  
5 5.

1           30. The display as claimed in claim 16, wherein each  
2 pixel comprises a metal layer with reflective and  
3 transmissive capabilities.

1           31. The display as claimed in claim 16, wherein each  
2 pixel comprises a multilayered film with reflective and  
3 transmissive capabilities.